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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,282	08/27/2001	Don J. Nguyen	42390.P12726	5123

7590 07/14/2004

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EXAMINER

WANG, ALBERT C

ART UNIT PAPER NUMBER

2115

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

*ch*

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/940,282	NGUYEN, DON J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Albert Wang	2115	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 October 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-23 is/are allowed.
- 6) ☒ Claim(s) 1,2,13 and 14 is/are rejected.
- 7) ☒ Claim(s) 3-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This Office Action is responsive to the Amendment filed October 1, 2001. Claims 1-23 are pending.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis et al., U.S. Patent No. 5,919,262 ("Kikinis"), in view of Redl et al., U.S. Patent No. 6,229,292 ("Redl"), and King, U.S. Patent No. 6,697,952.

As per claim 1, Kikinis teaches a computer system comprising:

a controller to generate a power state status signal to indicate a power state of a component of the computer system (Fig. 5, logic 27 generates signal on path 31 to indicate power state of CPU 29); and

a voltage regulator to supply a voltage level to the component in response to the power state status signal (Fig. 5, voltage regulator 25; Col. 3, lines 6-14).

However, Kikinis does not expressly teach how the voltage level to the component is adjusted when the component enters a sleep state. Redl teaches that when a component enters a sleep state there is a corresponding step change in the load current (Col. 1, lines 18-30). Redl further teaches a voltage regulator (Fig. 1, voltage regulator 10) that compensates for transient response due to step change in load current by increasing the voltage level to the component

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(Figs. 3a&b; Col. 2, lines 53-63). At the time of the invention, it would have been obvious to one of ordinary skill in the art to apply Redl's increasing the voltage level to the component to Kikinis' computer system, in order to meet requirements for a narrow voltage transient response (Redl, Col. 1, lines 58-65).

Kikinis/Redl, as applied above does not expressly teach a voltage regulator supplying power to a first plurality of components. King teaches a voltage regulator supplying multiple components (Col. 3, lines 58-67, multiple CPUs 120; Col. 4, lines 1-35, voltage regulator in power supply 150, plurality of mass storage devices 148). At the time of invention, it would have been obvious to apply King's voltage regulator supplying power to a plurality of components to Kikinis/Redl's computer system. A motivation for doing so would have been to save the expense of having additional voltage regulators.

As per claim 2, Redl teaches decreasing the voltage level when entering a wake state (Figs. 3a&b).

As per claim 14, King teaches a first plurality of components including a hard disk drive (Col. 4, lines 25-35, mass storage devices 148).

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis/Redl/King as applied to claim 1 above, and further in view of Intersil, "HIP6500B – Multiple Linear Power Controller with ACPI Control Interface", Data Sheet File Number 4870, May 2000.

As per claim 13, Kikinis/Redl/King does not expressly teach the power status signal is an SLP\_S3# signal. Intersil teaches a power controller responding to an SLP\_S3# signal (Fig. 3;

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Page 6, Functional Pin Descriptions: S3 and S5). At the time of the invention, it would have been obvious to one of ordinary skill in the art to apply Intersil's SLP-S3# signal to Kikinis/Redl/King's computer system. Development time is saved by using signaling compliant with the ACPI specification.

***Allowable Subject Matter***

4. Claims 3-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 15-23 are allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert Wang whose telephone number is 703-305-5385. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 703-305-9717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

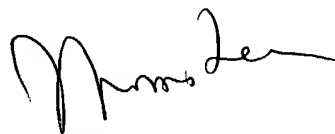
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July 11, 2004

A handwritten signature in black ink, appearing to read "Thomas Lee", written in a cursive style.

THOMAS LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100